



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/699,920

11/03/2003

James Stoupis

A149 1020.1

3866

7590

10/16/2006

WOMBLE CARLYLE SANDRIDGE & RICE

P.O Box 7037

Atlanta, GA 30357-0037

EXAMINER

RAHMAN, FAHMIDA

ART UNIT

PAPER NUMBER

2116

DATE MAILED: 10/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/699,920

Applicant(s)

STOUPIS ET AL.

Examiner

Fahmida Rahman

Art Unit

2116

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 27 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 7/26/06.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

Art Unit: 2116

### **DETAILED ACTION**

1. This final action is in response to communications filed on 7/27/06.
2. Claims 1-9, 11, 14, 17-21, 23-26, 38-40 have been amended and no claims have been added or cancelled. Therefore, claims 1-42 are pending.

### **Information Disclosure Statement**

The information disclosure statement (IDS) submitted on 7/26/2006 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is considered by the examiner.

### **Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 11, 14, 16-18, 20-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wright et al (US Patent Application Publication 2002/0046246), in view of Thelander et al (US Patent Application Publication 2003/0009705).

For claim 1, Wright et al teach the following limitations:

Art Unit: 2116

An automatic configuration tool (Fig 1) for configuring an IED for a power protection and restoration device (105), comprising:

- a processor (200);
- a memory for storing a plurality of databases containing protection, control and monitoring information for power protection and restoration devices (205);
- a graphical user interface ([0027] of page 2 mentions that the design of IED includes communication capabilities such as e-mail, instant messaging, chat, newsgroup capabilities. Thus, user can communicate with the power protection and restoration device through e-mail or other graphical user interface);
- and an automatic configuration application (the application performing the process of Fig 3) operating on the processor to provide to a user on the graphical user interface to enable the user to select a plurality of settings options ([0014] of page 2 mentions that IED may transmit e-mail to user including data relating to power systems. [0018] of page 2 mentions that the user may perform periodic setting adjustments, profile changes in an automatic and secure manner. Thus, the system allows user to view the information about power system and choose a setting adjustment/updates) the automatic configuration application using the selected settings options and the information in the databases to generate a settings file (lines 14-17 of page 1 mention that e-mail includes settings, configuration, commands, requests for information. Thus, the automatic

Art Unit: 2116

configuration application sends the user the requested information from the memory databases and let the user select appropriate settings adjustment to generate a settings file), the automatic configuration application exporting the settings file to the IED (Fig 3 shows that the settings are transported to IED).

Although Wright et al teach that the e-mail transmitted from and to IED may include non-text files, such as graphics and sound files, Wright et al do not teach that the GUI has plurality of menus to enable the user to select a plurality of options. Thelander et al teach a system where a plurality of menus is displayed to a user through GUI to select appropriate settings (Fig 4).

It would have been obvious for one ordinary skill in the art at the time the invention was made to combine the teachings of Wright et al and Thelander et al. One ordinary skill in the art would have been motivated to incorporate a GUI to provide a plurality of menus to the user in the system of Wright et al to select a plurality of options, since GUI is a well known approach in the art to provide flexibility of choosing desirable settings.

For claim 2, the IED of Wright et al is fed with a settings file, configuration. Thus, the system has plurality of settings module, settings file and a calculation engine to process the command received from the user as shown in 420.

Art Unit: 2116

For claim 11, [0033] of page 3 of Wright et al mentions that the various communications protocol may be implemented by the IED.

For claim 14, note [0042] of page 4 of Wright et al, which mentions that several operating parameters can be changed for the IED. Thus, a plurality of programmable functions can be configured by the user.

For claim 16, [0014] of page 2 of Wright et al mentions about oscillographic data.

For claim 17, [0016] of page 2 of Wright et al mentions that simulators can be used to reproduce the problem. Thus, fault and disturbance data is captured.

For claims 18 and 21, lines 5-7 of [0042] of page 4 of Wright et al, which mention that the command causes IED to perform a certain function at a certain time. Thus, there are protection co-ordination, coordination simulation engine ([0014] mentions about sequence of event data. Thus, there is a simulator) and input/output mapping engine for mapping logic that enables the user to perform plurality of functions at plurality of times.

For claim 20, [0014] of Wright et al mention sequence of event data.

Art Unit: 2116

For claim 22, [0033] of page 3 of Wright et al mentions that the database for controlling, monitoring and protecting equipments exist in the system. Thus, the databases include a protection philosophy database.

For claim 23, [0042] of page 4 of Wright et al mentions that the configuration file causes IED to change several operating parameters. Thus, the power protection and restoration file has the plurality of determined settings.

For claims 24 and 25, [0037] of page 4 of Wright et al mentions that the e-mail can be HTML formatted or XML formatted. Thus, the settings file can be XML or web based.

4. Claims 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wright et al (US Patent Application Publication 2002/0046246), in view of Thelander et al (US Patent Application Publication 2003/0009705), as applied to claim 2 above, further in view of ordinary skill in the art.

For claim 3, the combination of Wright et al and Thelander et al does not disclose a module to select an application type for a power system installation.

However, it is required to select the application type for the power system installation, since different types of systems require different settings. Thus, an

Art Unit: 2116

ordinary skill in the art would have been motivated to select the type of power system installation to configure the system properly.

For claims 4-6, user needs to select for transmission or distribution system, new or retrofit for proper operation of the system. Transmission and distribution systems are well known in the art and an ordinary skill in the art would have been motivated to incorporate the teachings of Wright et al in power transmission and distribution application.

5. Claims 7, 8, 12, 13, 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wright et al (US Patent Application Publication 2002/0046246), in view of Thelander et al (US Patent Application Publication 2003/0009705), further in view of Sezi et al.

For claims 7 and 8, the combination of Wright et al and Thelander et al does not disclose the tripping preferences. Sezi et al disclose the tripping preferences (Fig 14). It would have been obvious for one ordinary skill in the art to combine the teachings of Wright et al, Thelander et al and Sezi et al. One ordinary skill in the art would have been motivated to include tripping preferences for 3-phase and 1-phase circuit, since that is a way to control power system operation.

For claim 12, Sezi et al teaches load profile information and metering values (lines 1-2 of page 949).



Art Unit: 2116

For claim 13, [0014] of page 2 of Wright et al mentions about power quality data.

For claim 15, note page 948 of Sezi et al for trip and breaker control.

6. Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wright et al (US Patent Application Publication 2002/0046246), in view of Thelander et al (US Patent Application Publication 2003/0009705), further in view of Weinbach et al (US Patent 6271759).

For claim 9, the combination of Wright et al and Thelander et al does not mention about over protection philosophy preference. Weinbach et al disclose plurality of settings modules comprising a protection settings module that enables the user to select a protection philosophy preference (Fig 4, 410).

For claim 10, Weinbach et al teach that the protection philosophy preference selection includes fuse clearing (470).

It would have been obvious for an ordinary skill in the art at the time the invention was made to combine the teachings of Wright et al, Thelander et al and Weinbach. One ordinary skill in the art would have been motivated to set the protection philosophy preference, since that is a part of configuration of IED.

Art Unit: 2116

7. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wright et al (US Patent Application Publication 2002/0046246), in view of Thelander et al (US Patent Application Publication 2003/0009705), further in view of Azbe et al.

For claim 19, Wright et al or Thelander et al do not mention about over current curve. Azbe et al teach the over current protection curve (Fig 7).

It would have been obvious for an ordinary skill in the art at the time the invention was made to combine the teachings of Wright et al, and Azbe et al. One ordinary skill in the art would have been motivated to set the protection curve, since that is a part of configuration of IED.

8. Claims 26-29, 31, 32, 34-36, 38-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wright et al (US Patent Application Publication 2002/0046246)

For claim 26, Wright et al teach the following limitations:

A method for automatically configuring an IED (105) for a power protection and restoration device comprising the steps of:

- providing a calculation engine (processors in the system of Fig 3);

Art Unit: 2116

- providing a plurality of databases to store protection, control and monitoring information for power protection and restoration devices (205 is storing the plurality of databases for protection, controlling and monitoring application for power protection and restoration devices. Thus, the system generates plurality of databases to store varieties of data);
- selecting a plurality of presented settings options interactively using a graphical user interface ( [0014] of page 2 mention the types of data IED can receive to and from the user via e-mail and [0018] mentions the adjustment of settings by the user. Therefore, user can receive settings from IED and perform adjustment on the settings to create updated settings. To create the updated settings, the user can select the appropriate settings on the received file and make necessary changes);
- processing (i.e., updating the settings with changes suggested by user) the selected plurality of options (i.e., settings changed by the user) using the calculation engine (processor) and the information in the databases (i.e., the received file from IED that contains current settings) to determine a plurality of protection, control and monitoring settings (i.e., updated settings file);
- creating a protection, control and monitoring settings output file (310 shows the downloading of data. Thus, there is settings output file);  
and automatically downloading the protection, control and monitoring settings output file to an intelligent electronic device for the power protection and restoration device ([0018] of page 2)..

Art Unit: 2116

For claim 27, 225 is the configuration database.

For claim 28, configuration settings can be mailed to user. Thus, plurality of options includes configuration settings.

For claim 29, [0014] of page 2 mentions oscillographic data.

For claim 31, IEDs are protection device. Thus, the system allows user to set a protection philosophy.

For claim 32, [0033] of page 3 of Wright et al mentions that the various communications protocol may be implemented by the IED.

For claim 34, [0014] of page 2 of Wright et al mentions about power quality data.

For claim 35, note [0042] of page 4 of Wright et al, which mentions that several operating parameters can be changed for the IED. Thus, a plurality of programmable functions can be configured by the user.

For claim 36, [0014] of page 2 of Wright et al mentions about oscillographic data.

For claim 38, [0014] of page 2 mentions the SOE data.

Art Unit: 2116

For claim 39, note [0042] of page 4 of Wright et al, which mentions that several operating parameters can be changed for the IED. Thus, a plurality of programmable functions can be configured by the user.

Claims 40-42 implement the medium necessary to store the methods performed in claim 26, 28 and 29 respectively. The medium is required to perform the execution of the method. Thus, the cited prior art teaches the medium necessary in claims 40-42.

9. Claims 30 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wright et al (US Patent Application Publication 2002/0046246), further in view of Sezi et al.

For claim 30, Wright et al do not disclose the tripping preferences. Sezi et al disclose the tripping preferences (Fig 14).

It would have been obvious for one ordinary skill in the art to combine the teachings of Wright et al, and Sezi et al. One ordinary skill in the art would have been motivated to include tripping preferences, since that is a way to control power system operation.

For claim 33, Sezi et al teaches load profile information and metering values (lines 1-2 of page 949).

Art Unit: 2116

10. Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wright et al (US Patent Application Publication 2002/0046246), further in view of Azbe et al.

For claim 37, Wright et al do not mention about over current curve. Azbe et al teach the over current protection curve (Fig 7).

It would have been obvious for an ordinary skill in the art at the time the invention was made to combine the teachings of Wright et al, and Azbe et al. One ordinary skill in the art would have been motivated to set the protection curve, since that is a part of configuration of IED.

### **Response to Arguments**

Applicant's arguments filed on 7/31/2006 have been fully considered but they are not persuasive.

Applicant argues that memory 205 is in the IED 105 and not in a separate configuration tool. Thus, Wright et al fail to suggest the limitations " an automatic configuration tool having a memory storing plurality of databases".

Examiner disagrees. Claim does not require that the configuration tool have to be separate from IED. Claim requires the tool to configure IED. Therefore, the tool (system of Fig 1) comprises memory 205 storing plurality of databases.

Art Unit: 2116

Applicant further argues that Wright et al does not show a selection of presented settings options and processing of such selected settings options to produce a plurality of protection, control and monitoring settings. Therefore, Wright et al do not teach the limitations "selecting a plurality of presented settings options interactively using a graphical user interface" and "processing the selected plurality of options using the calculation engine and the information in the databases to determine a plurality of protection, control and monitoring settings".

Examiner disagrees. [0014] of page 2 mentions that IED can initiate e-mail across the Internet to send settings and configuration data to a remote system. Thus, remote user is given current settings/configuration of IED. [0016] of page 2 mentions that a remote user can diagnose a situation within IED using available simulators to offer solutions to fix the problem. Therefore, a plurality of settings options from the current configuration/settings are selected and changed by the remote user to fix the problem of IED. [0018] of page 2 mentions that remote user may perform periodic adjustment in an automatic manner. To perform the adjustment suggested by diagnostic steps, the received configuration file (containing the information from database 205) has to be updated with the desirable changes by user (i.e., the suggested change from diagnostic tool) and processed to generate the updated settings in proper format. Since the communications between user and IED are through e-mail, a graphical user interface is a must. Therefore, Wright et al suggest the limitations "selecting a plurality of presented settings options interactively using a graphical user

Art Unit: 2116

interface" (i.e., changing the received settings from IED, as suggested by diagnostic steps as mentioned in [0014]-[0018]) and "processing the selected plurality of options using the calculation engine and the information in the databases to determine a plurality of protection, control and monitoring settings" (i.e., the proposed settings changes to fix the problem can be used to make an updated settings by using the old file containing information from databases received from the IED). The processor to process the old file and proposed changes to make the new updated settings file is the calculation engine.

Applicant further argues that Wright et al do not teach "displaying a plurality of settings options using a graphical user interface" and "receiving selections of the displayed settings options" as recited in independent claim 40.

Examiner disagrees. Wright et al teach IED to send current configuration and setting to remote user. Wright et al further teach reproducing a problem using available simulator and offering solutions. The solutions are setting options, which are displayed to the remote user. Wright et al teach periodic adjustment of settings through e-mail. Therefore, the current configuration file can be changed with proposed solutions (or, setting options). Thus, Wright et al teach receiving selections of the displayed settings options.



Art Unit: 2116

Applicant further argues that Wright et al do not teach "processing the received selections using the information in the databases to determine a plurality of protection, control and monitoring settings", as recited in independent claim 40.

Examiner disagrees. To perform periodic adjustment through e-mail, user needs to generate the updated configuration/settings to determine plurality of protection, control and monitoring settings file from proposed solutions and current configuration/settings file that the user received from IED. Current configuration file received from IED contains information from database. Generating an updated file requires processing. Therefore, Wright et al teach the recited limitations of claim 40.

### **Conclusion**

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be

Art Unit: 2116

calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fahmida Rahman whose telephone number is 571-272-8159. The examiner can normally be reached on Monday through Friday 8:30 - 5:30. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on 571-272-3670. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Fahmida Rahman  
Examiner  
Art Unit 2116



LYNNE H. BROWNE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100